

they perceive that no action is possible, they may go into denial about the danger. I was pleased when I heard that there is a neighborhood group attempting to stop the proposed expansion of Sutro, because it indicates that at least some of my fellow citizens are ready to step forward and take action. And I certainly want to join them, however I can. I strongly object to the plan to expand the Tower; and until it has been proven without question that there is no danger from the radiation and other effects of the Tower, I would support the city refusing to sanction its expansion. And in fact, I would support the city beginning a process which could lead to taking it down altogether.

Sincerely,

Lynn O'Connor

cc: Pam Patania
Steve Nahm

Kathryn L. Goldman
220 Palo Alto Avenue
San Francisco, CA 94114
415/681-6488

COPY

September 7, 1997

Hillary Gitelman
Planning Department, City and County of San Francisco
1660 Mission Street
San Francisco CA 94103-2414

Dear Ms Gitelman:

I am concerned about the proposed expansion of Sutro Tower for Digital Television (DTV) transmission. I am not a technical expert, but I have carefully read the entire Draft EIR and have done my best to understand the full range of issues. I am a homeowner and direct neighbor of the tower, living approximately 500 feet from its base. My home is roughly at location #3 of their measurements of RFR emissions, where the RFR power density is at almost 7% of FCC guidelines. This is one of the closer (though fortunately not the closest) locations.

Before buying our home in 1995, we thoroughly researched the presence of the tower, contacted Sutro Tower, Inc., and were more or less satisfied. At that time, we were told by them that the lifetime of the tower was approximately another 20 to 25 years. It seems odd that in fact the tower at that time had already prepared documents for expansion to DTV and thus plans to extend its life, even while telling us that changes in technology would tend to terminate its value.

The proposed expansion of the tower (the DTV mast) only came to my attention through neighborhood action. I am surprised that this expansion was not brought to neighbors' attention by City Planning, and I request that I be placed on all neighbor notification lists which City Planning might require for Sutro Tower in the future.

I respectfully request that the Planning Department deny the requested expansion of Sutro Tower to add a mast for DTV transmission, or at least postpone this expansion until all concerns can be adequately addressed.

Points Of Concern

1. **Structural soundness and impacts in case of disaster.** How will the structure be impacted by the addition under various possible disaster scenarios: earthquakes of various magnitudes; small plane hitting tower; winds of roughly 100 mph; terrorism — all of which unfortunately are quite possible.
2. **What are the health and biological tissue impacts?** While these may not be germane to resolving this permit, they should be of real importance to the city government. Rarely do we have an opportunity to re-consider things that may be harmful to the people of the city. This is such an opportunity.

Much is now known that was not when the city originally allowed this construction. I have been informed that Sutro Tower is the only such tower located so close to people's homes. That means that it is possibly the only site where people are exposed for long periods (daily - 8 to 12 hours or more) to the concentrations of RFR that it emits. Although the percentage of allowable emissions may range only up to 6 - 14 % in our homes, this is a constant in our bodies and cells, rather than something that only happens intermittently, as with the Mount San Bruno site, where people might hike or picnic for an afternoon, but not live all the time.

The preliminary EIR raises the following areas that give cause for concern:

- It is not clear that the same standards should apply for "general public exposure" and for people living in homes where exposure is a constant, day after day. Nowhere does the EIR address this question.
- How do we know for certain that exposure will not increase more than is anticipated during the period of time when there will be both DTV and NTSC signals?
- How do we know that this additional unexpected exposure does not raise the possibility of a slight thermal effect that makes possible the types of biological and physiological damage mentioned as possible, though not likely? Even if much research shows no damage, as a PhD scientist, I know that this does not mean the issue is resolved. Throughout the history of science, we have seen many instances where 'generally accepted scientific views' later turned out to be incorrect.

For a list of relevant citations from the Draft EIR, see attached Appendix.

3. **Compatibility with the City's Environmental Planning**

Although the site itself is and would function consistent with its zoning, that zoning is not in character with the surrounding neighborhoods, nor has it been, since construction.

The planning director at the time of construction, Allen Jacobs, told the Planning Commission in 1970 that "he could not recommend that the project be built," but that he did not see how to prevent it. In fact, The Planning Commission had voted 6-4 against the tower in 1966, but that was 2 votes short of the 2/3 needed. In other words, although we are now 'stuck with it' (so to speak) there was considerable disagreement as to whether it was appropriate for the location and should have been built, even without the wealth of controversial data that now exists.

With regard to the city's eight Priority Policies, I believe problems exist with:

- protection of neighborhood character
This is a neighborhood of single family detached homes. It is totally out of character with the neighborhood and always was.
 - maximization of earthquake preparedness
No scenarios exist for the tower as is; let alone studies done to determine the impact of proposed changes on homes in neighborhood abutting the site in case of earthquakes. No studies have been done of the impact of the proposed changes on possible flooding of the immediately adjacent reservoir. These are potentially serious issues which could cause loss of life, as well as considerable financial damage for homeowners and the city.
- Noise.** Although the Draft EIR states that no change in the noise of wind through the tower is expected, no data is provided to indicate that this has been computer-modeled or studied in any way. We would like such proof.

Hazardous materials. Because painting of the tower caused considerable damage to local homes and automobiles in the past, we would like to be assured that the paints referred to on p.3-40 will not again be handled in ways that cause damage.

In conclusion, I ask you not to permit this modification to proceed until studies are done to provide the above information, and it is made available to the city, the interested neighborhood associations and the immediately adjacent property owners. I oppose extending the useful life of the tower because (1) San Francisco should not be the sole city in which residents are exposed so closely to the ongoing unknown effects of RFR; (2) the harmful potential when the 'Big One' Earthquake finally occurs is tremendous, whether from collapse or furthering the likelihood of reservoir flooding; (3) it is unnecessary, since technological changes since the late 1960's make it possible to use other sites.

Sincerely yours,

Kathryn L. Goldman

APPENDIX - Citations from the Draft EIR indicating possible adverse health problems

Examples:

1. p. 3-16, Draft EIR. "While the substantial weight of scientific research has indicated that no adverse health effects would result at low power levels, *some findings have been contrary*. The Technical Report concludes that the adverse effects identified were the result of a thermal effect (a measurable increase in body or cell temperature).....or that the evidence for adverse effects was inconclusive"
2. Possible Impacts On The Eyes: p. 3-18, Draft EIR. although vision was not affected "ophthalmologic examinations showed various eye abnormalities."
3. Central Nervous System Effects: p. 3-20, Draft EIR.
Here studies have been done primarily on animals. "Changes in the central nervous system were seen at relatively low specific absorption rates in two studies, but their significance with regard to human health hazards is unclear." In other words, there is no proof that harm is likely — but there is reason for further study before drawing conclusions either way. (To me, this suggests that one would not expose dozens of households (those living closest to the tower) to such a condition, but would seek ways to eliminate the possible harm, were such alternatives possible.)
Altering the Amount of Calcium-Binding to Cells and Tissues: "There are contradictory findings... Resolution of this issue is not likely in the foreseeable future. This effect, if valid, appears to be a non-thermal effect. What this does to the human body is still unknown."
4. Lifespan.
Contradictory effects here as well. p. 3-21, Draft EIR. "There appears to be a tendency toward enhanced lifespan for mildly thermal (elevated temperatures) exposures but reduced lifespan when the RF exposure is combined with chemical carcinogens." One might well expect such a combination for inhabitants of a city like San Francisco.
5. Cardiovascular Effects.
Here, as in other areas, the impacts resulted only in combination with a thermal effect.
6. RFR and Drugs. p. 3-23, Draft EIR.
"Investigations that sought interactions between RFR exposure and psychoactive drugs yielded unclear or inconsistent results. At relatively low RFR levels, the role of heat regulation in the results is unclear and *the occurrence of relatively high local specific absorption rates in the brain cannot be ruled out.*"
7. Cancer.
two recent studies done in England by Dolk et al (1997a, b) (Draft EIR, p. B-18-19) with a tower similar to Sutro Tower suggest that leukemia occurred more often for people living closer to the tower, at two different time periods. Since they defined 'close' as '2 kilometers' and here 'close' is less than a third of a kilometer, one would suspect that the pattern (and therefore the hazard) may be even stronger. Basically, the EIR summary shows that there is a lack of data on the impact of long-term, close-up exposure to humans, as occurs for those of us living near the tower. The few studies that exist suggest the possibility of leukemia, but do not prove it either way.
In summary, although no evidence of actual harm has been found at the levels to which residents would be exposed, such harm cannot be ruled out, although the EIR asserts that the weight of reliable scientific evidence suggests there is no problem. many situations have happened where it was the lone individual in opposition to some given established belief who turned out to be correct. This is not always true, of course, but it happens often enough that these indications of possible harm should not be ignored by the City.

*Thomas & Jody Kornberg
50 Glenbrook Avenue
San Francisco, CA 94114*

September 3, 1997

Hillary E. Gitelman
The Environmental Review Officer
Planning Department
1660 Mission Street, 5th Floor
San Francisco, CA 94103

Dear Ms. Gitelman;

This letter is written to protest the Draft EIR filed on behalf of the Sutro Tower Inc. for the addition of Digital Television capability. In my opinion, this EIR is severely deficient in a number of areas, namely:

1. The EIR does not adequately address the exposure levels of RFR that will saturate the neighborhood during the construction phase, when the current analog signal antennas will be inactivated and replaced by temporary antennas mounted at a location considerably closer to areas of public access. The EIR does not address whether the levels of RFR contaminating the neighborhood will exceed Federal limits during the construction phase of the project.
2. The EIR states on page 1-4 that auxiliary "standby" antennas are mounted on the first rung of the Tower, and that although they are apparently used infrequently, three of the auxiliary antennas emit more power than the main antennas. Since these auxiliary antennas are also closer to the surrounding neighborhood, we must conclude that their RFR emissions exceed those measured, calculated and quoted in the EIR. The EIR appears to have presented data that can be construed as "the best case scenario", and not the more realistic description of the way in which the Tower is actually used. The EIR is therefore deficient in not addressing the levels of emissions that contaminate the neighborhood under all conditions of its use. It should calculate and measure emissions at all relevant locations under conditions in which all of the auxiliary antennas are operating, since this is a possible state that the Tower is currently equipped and ready to operate. Without this information, it is not possible to accurately assess the likely consequence of the additional DTV antennas.

3. The EIR states on page 1-4 that the auxiliary antennas are describe on page 2-5. They are not.

4. On pare 1-6, the EIR states that the new DTV antennas will not be visually intrusive, and on page 3-28 that the new antenna structure would be painted the same color as the tower. It is worth recalling that in 1966 the Sutro Tower Inc. represented to the residents of San Francisco and to the Board of Supervisors and Planning Commission that the Tower "will be painted a neutral color consistent with the surroundings" and not the ugly white and orange stripes that it is. More recently, we have been told that the addition of strobe lights to the tower would obviate the need for the orange and white striping. Perhaps it is time to require that the Sutro Tower Inc. comply with the design that they originally proposed and for which approval was obtained.

5. The EIR presents theoretical data on RFR exposure levels at a distance of "one city block" from the tower, but does not address RFR levels at the closest points of public access. The description on page 1-5, paragraph 3 mentions that the closest residence is 250 feet from the base of the tower and that the closest public roadway is about 150 feet from the tower, but it does not make clear how these locations and distances relate to the actual perimeter of the Sutro Tower property and to the various different antennas that are used at the Tower. Since public access in the region of the reservoir directly abutting the Sutro Tower property is in fact heavily utilized, this is more than a theoretic consideration.

6. According to Mr. Lee of the San Francisco Department of Public Health, he has identified at least one "hot spot" near the Sutro Tower where it is likely that there are levels of RFR significantly higher than those noted in the EIR. He has stated in public meetings that the levels of RFR emissions were sufficient to melt paint from a metal sign at this location. If this is indeed the case, then the theoretical treatment described in the EIR is inadequate as it fails to identify such "hot spots", and its findings cannot be accepted as a valid representation of the RFR levels contaminating the vicinity of the Tower.

7. On page 6-5, the EIR states that San Bruno Mountain would be able to serve all of San Francisco with DTV signals and on the same page the EIR states that it would not be able to serve all of San Francisco. Thus, it remains unclear from the statements in the EIR whether or not San Bruno Mountain is in fact a viable alternative.

8. The EIR states that the Sutro Tower is currently not in compliance with the current Building Code and thus can be considered to be an earthquake hazard today. Although reinforcement of the current structure will bring the Tower into compliance with the

current Building code, it is reasonable to expect that this state of compliance will be only temporary. The Code has been revised on several occasions since 1966 when the Tower was built, and it will certainly be revised again as more is learned about the forces unleashed in earthquakes and the response of buildings to them. It is therefore reasonable to expect that the Tower will again be in non-compliance in the future and that the additional weight of the new DTV antenna at the highest elevations of the Tower will exacerbate the hazard. The history of the Tower is that it has not been in compliance with contemporary building codes for many years, and we can confidently predict that it will again be in non-compliance in the not too distant future. Careful consideration must therefore be given to the various scenarios that will likely result from catastrophic structural failure. The EIR does not adequately address these concerns.

9. According to a published report in July 21, 1997 "Broadcasting & Cable" in which Mr. Gene Zastrow, the general manager of Sutro Tower Inc., is quoted, construction to prepare for the DTV antenna system has already begun. This would seem to violate the purpose and intention of the EIR and its public review.

10. Subsequent to the initial building permit for construction of the Sutro Tower in 1966, there have been many changes and additions to the Tower that have included a significant increase to its size and height, numerous construction projects, as well as frequent upgrades to improve transmission, add capacity and signal strength. We can expect this scenario to continue as the technology of transmissions evolves and the requirements change. The EIR ignores the impact of any future changes and additions and mentions no commitment by Sutro Tower Inc. to limit the number of antennas or the level of RFR contamination to the levels proposed in this phase. What assurance do we have that this proposal does not represent a "low ball" estimate designed to provide a structural capability that can accommodate significant increases in RFR transmission in the future, increases that may not require another EIR and its accompanying public discussion?

11. The EIR states that the level of noise and dust contamination of the neighborhood will not increase significantly as a result of the construction for the proposed DTV antennas. This presumes that the current level is both acceptable and within the accepted limits currently applied elsewhere in the City. In fact, the Tower has proven itself to be an exceedingly poor neighbor in this regard. For instance, although it is common practice in the City to create barriers around structures to insulate surrounding homes and buildings from detris such as sand spray, paint spray, and falling objects that are the unavoidable consequences of all construction projects, the recent refurbishing of the Tower inundated the neighborhood with sand, paint chips, and paint spray. The Tower was sandblasted frequently during times of heavy winds and without any

barriers, resulting in massive sand spray and paint chips spread over large distances around the neighborhood. After repeated objections from residents living near the Tower, cloth barriers were placed around the areas of sandblasting, but these were largely ineffective. The Sutro Tower Inc. made no effort to assist in the cleanup of the sand or paint chips. During the painting phase that followed, paint spray damaged many homes and automobiles in the neighborhood, and this is itself ample testimony to the ineffectiveness of the options for protection that were available to the Sutro Tower Inc. We can attribute the blame to little, no or insufficient effort paid to protecting the immediate environment of the Tower, but this is only part of the problem. The enormous size of the Tower is certainly the dominant factor, since creating barriers strong enough to survive the high winds and large enough to cover the tower is probably prohibitively difficult and expensive. Indeed, representatives of Sutro Tower Inc. have indicated that the problems in the Twin Peaks neighborhood caused by routine maintenance of the Tower are unique to the Sutro Tower and are not encountered at other locations around the country because only the Sutro Tower among all of the transmission towers of this size in this country, is situated in a densely populated urban environment. Therefore, the issue that must be addressed is whether a construction project of this magnitude and the routine maintenance of the new structure can in fact be carried out in a residential neighborhood without unreasonably impacting the persons and property in the immediate vicinity. Past performance tells us unequivocally that the Sutro Tower Inc. cannot. The EIR should evaluate the consequences of the proposed construction and maintenance of the new antenna structure with standards that are relevant to neighborhoods elsewhere in the City, not to existing substandard levels that currently exist at the Tower. That is, it is not acceptable to simply state that the conditions during construction would be no worse than those now present at the Tower site. Since the current situation at the Tower is not the proper standard, the comparison that the EIR makes to existing conditions is inherently misleading and unacceptable. Any valid comparison or evaluations should address in detail the specific measures that would be employed to eliminate any and all material contamination of the neighborhood that might be a consequence of the proposed construction.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Kornberg", with a stylized flourish at the end.

Thomas Kornberg

226 Palo Alto Avenue
San Francisco, CA 94114

September 7, 1997

Ms. Hillary E. Gitelman
The Environmental Review Officer
Planning Department
1660 Mission Street, 5th Floor
San Francisco, CA 94103-2414

Dear Ms. Gitelman:

I am writing to you to comment on the Sutro Tower DTV Environmental Impact Report. Specifically, your inadequate evaluation of the noise factor currently extant at the tower, and the fact that placing another 120 foot steel beam, plus guy wires and antennae, etc. up there will make it worse.

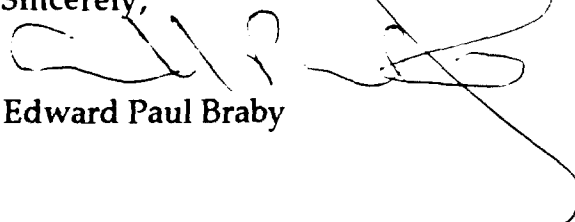
The tower makes a lot of noise. Even in mild wind, the hum from the guy wires and tower legs sounds like a hurricane-level storm. When the trees are just gently rustling in the wind, the tower is howling. I can't believe that you have talked to anyone about this issue or come up to the tower on a windy day, or you would not have downplayed the issue as you did in the draft EIR on pages 3-35 and 3-36.

There are many other factors that also need addressing -- earthquake safety in the neighborhood, electromagnetic radiation effects from both existing analog and the new DTV, and further noise pollution to name just a few.

There is an ideal non-residential area in which to place the tower, at Mt. San Bruno. If this was done, Sutro Tower could be phased out and eliminated when it is no longer needed. I urge you to make stricter evaluations of these issues before completing the final EIR, and request wind-tunnel studies before construction begins.

I am enclosing a letter from the files of Mr. Jules Heumann to let you see the level of frustration that has been here on this issue ever since the tower was built. This file (two inches thick) is available for your perusal. I will bring it to you any time you ask for it. It includes letters from the Department of Public Health and the Board of Supervisors, and acoustic engineering reports, to name a few.

Sincerely,



Edward Paul Braby

JOLES M. HEUMANN

20 May 1976

Mrs. Charlotte C. Poole, Chairman
Committee #7
Civil Grand Jury
Room 165
City Hall
San Francisco, California 94102

Dear Mrs. Poole:

Speaking both for the Twin Peaks Improvement Association and for myself personally, I again thank you and your Committee for the time and obvious interest at your meeting with us on Thursday, 6 May 1976, at the Midtown Terrace Recreation Center. I hope you will forgive this belated response to follow up the subject I broached; several files had to be searched for all the printed matter we could find.

The subject is the Sutro Tower and the wind noise emanating therefrom. To briefly review the story: the Tower was begun in approximately 1972 and to a design substantially changed from that which was publicized as final approval. In approximately 1974 the Tower had reached its height and the antenna were installed. So far, other than noises due to construction (which were expected and tolerated) there were no other undue noises from the Tower.

Commencing with the installation of the antenna guy wires a most annoying noise commenced which is explained in the enclosed letters. To date, despite many promises, nothing has been done to alleviate the truly serious annoyance.

The enclosures are our letter of 8 March 1974 to Sutro Tower, their answer of 3 July, our letter of 30 March 1975; the files reveal no other correspondence. You must realize that a constant telephone communication was maintained with Mr. Harry Jacobs and the writer as well as with Mr. Jacobs and the current presidents of TPIA.

Approximately one year ago a formal complaint was registered with the Noise Pollution Division of the City Health Department (Mr. Robert McDonough); upon his first visitation and reading with a decibel meter he was astounded at the volume of the reading observed which was far in excess of the legal

maximum and in fact read off the scale of his meter at the high end. The next day he put a sixty day order upon them to alleviate the noise. Within that time a six month extension was requested by and granted to the Tower and subsequently, another six month extension.

The date nothing has been done. When the wind blows strongly enough the noise is loud enough that it can actually awaken one from sleep. The noise may be heard in all neighborhoods surrounding the Tower depending upon the direction the wind is coming from. The sound also travels very strangely at times, jumping over certain areas and becoming quite loud in areas further away.

Reading between the lines, from what information we have been able to glean, it would appear that the Tower is now endeavoring to avoid compliance with the order to remove the noise. This is not surprising as I am sure it will be an expensive situation to remedy; top this with the fact that most of the Board of Directors, I am told, live in New York!

Also enclosed are two letters which were distributed in the neighborhood, primarily to the TPIA area. The 8 October 1975 one is self-explanatory. The 9 December 1975 one, though self-explanatory as well, must be interpreted: the reason Mr. Salter has a new twenty-four hour telephone is because the calls to him in complaint of the wind noise (and for his scientific observation at that time) were becoming such a bother to him that he installed a phone answering service. I would assume he gets his messages the next morning when obviously the chance of the wind and noise remaining is much diminished.

It should also be pointed out that because of our extremely unusual winter 1975/1976 that we have not had high winds very often and so there have not been as many complaints as before. This is not normal and we would expect our seasonal winds to return again at the end of this year.

It should also be pointed out that Mt. Sutro is approximately 900' elevation and that the antenna guy wires are approximately another 900' in elevation; it is entirely possible for wind to be blowing at the 1800 foot level and not at the 900 foot level or lower; in this instance in this instance when it does occur the noise is all the louder.

TPIA is annoyed with this situation as is the Midtown Terrace Association. Forest Knolls as well have voiced their unhappiness.

We seek to enlist your assistance in this unpleasant matter. We feel, and not without some justification, that we are being stalled until we get tired of complaining.

If there are any questions that I might answer it would be my pleasure; my office number is 871-6222 and my home number is 664-1247.

Very truly yours,

Jules M. Heumann
Vice President TPJA

jmh:a

Enc.

CC: Charles Breyer, Esq.
% Jacobs Sills and Coblentz
555 California Street
San Francisco, California 94104

James Fitzpatrick, President
Twin Peaks Improvement Association
86 Clarendon Avenue
San Francisco, California 94114

TWIN PEAKS IMPROVEMENT ASSOCIATION

SAN FRANCISCO 94114

8 October 1975

Dear Neighbor:

As you are all aware, the Mt. Sutro television tower has been the source of bothersome and severe noise for a period of years.

In 1973 a constant personal, verbal contact was maintained with the chief engineer of the Sutro Tower and although promises were made, nothing was done to alleviate the noise. In March 1974 TPIA sent a letter to the tower asking for relief from the noise. It was answered but no results were forthcoming. In March 1975 TPIA again wrote the tower, this time assuming a more threatening position. Still nothing happened.

In May of 1975 the City Health Department noise engineer recorded tower noise during a windstorm; the decibel level of the sound exceeded the maximum allowable in city statutes and a 60 day noise abatement order was placed on Sutro Tower.

In July 1975 Sutro Tower, Inc. received a six month extension of the noise abatement order and hired their own-engineers to investigate the noise. Sutro Tower will probably do all they can in order not to comply with the noise abatement order. If the city is to make this noise abatement order stick they must have our assistance:

WHEN THE WIND IS BLOWING AND THE TOWER IS MAKING ITS UNPLEASANT NOISES-CALL BOTH OF THE FOLLOWING PEOPLE AT ANY HOUR OF DAY OR NIGHT:

Robert MacDonough	Office	558-4731	Home	922-1452
Charles Salter	Office	982-4370	Home	284-7572

Mr. MacDonough is the city engineer; Mr. Salter is a private engineer employed by the Buonaccorsi and Associates firm as hired by Sutro Tower, Inc. It is important that both men be notified. They expect to be called at any hour. Please call as often as you are disturbed by the tower noise.

Very truly yours,



James M. Heumann
Director, TPIA

jmh:m

ARGUMENTS FOR REGULATION OF THE MT. SUTRO TOWER

The argument from a perspective of history and logic is as follows: In the twenties, it was possible and legal to purchase X-ray tubes and many were purchased for home experiments and party games. Also in the twenties, people drank radioactive water (often because of their physician's advice) because they thought it was healthy. In the forties and fifties, people were fooling around with radioactive substances (prospecting, experimenting and atomic testing) unaware of the danger and often well below the absurd standard that was in effect at the time. Well into the seventies, people spent much time in the sun and under tanning lamps because they thought it was healthy. Now we know that ultraviolet rays cause cancer and cataracts. Infrared rays (heat) can cause burns. Microwaves cook our food, and could cook us as well. Even prolonged exposure to high intensity light can cause blindness. In each case, too much radiation can cause damage to the human body. In the case of X-Rays, radioactive water, and sun exposure, these were thought to be safe or even healthy. They subsequently were found to be harmful. The sun has been around since before life on this planet; X-radiation and ionizing forms of radiation (radioactive substances) have been known for over a hundred years. Radiowaves have been artificially generated only since the twenties (except for experiments and coastal-marine use). The frequencies used in TV and FM Radio have only been in general use during and since WWII. No scientific study has shown that electromagnetic radiation is harmful in doses which residents around Sutro Tower are receiving, but neither are there any studies to show that the levels are safe. The current standard is arbitrary without any empirical evidence or fact to justify it. Since most, if not all, other forms of radiation have been shown to be harmful to the human organism in prolonged doses it is indeed possible that electromagnetic radiation is also harmful. It is wise to err on the side of caution. The above forms of radiation were found to be harmful after a fairly large group of people became ill with cancer or other problem and a doctor or scientist tried to find the cause. After much trial and error, various common causes were postulated and experiments were devised to test the hypotheses. After much experimentation and repetition of experiments, conclusions would be drawn and further studies made to ascertain safe limits (if any) of exposure. Standards would be created based upon these studies. This takes a long time. A lot of people had to get sick and die for scientists to get their data. Others became ill while the studies were being done and standards created. Are we the ones who will have to give our lives to show that electromagnetic radiation is toxic? Many substances are more or less carcinogenic. In some cases, only a few people are sensitive to a certain carcinogen at a given level. In other cases, a large percentage of the population are sensitive to a carcinogen. Society has to draw a line between the perceived value of a carcinogen and the possible number of people who will come down with cancer and will probably die. Since this data is difficult to obtain, some standards are absurdly low and others absurdly high. The ones that are too high are adjusted downward when the level of cancer becomes too high (again taking time and lives). Are we to be the ones to "adjust" the standard? A "safe" level of radiation exposure should be determined by empirical evidence and good scientific study; a

standard created based upon this data; and then and only then can levels of radiation be increased if possible. Perhaps a reduction until this standard is created is in order.

Since science, history and logic often play little part on political decisions, perhaps the following economic amendment should be added to the above argument: If and when the above studies are made and it is found that we have been exposed to overly high amounts of radiation, can The City (and indeed the owners of Sutro Tower) afford the lawsuits that will inevitably occur? Even if The City wins, the cost of litigation will be in the millions.

Since the environment affects how we live and current thinking is that we have the right to have an environment that allows us to live normal lives. The following abnormalities show that residence around the Tower is not normal: Anything with tapeheads (tape recorders, VCRs, answering machines etc.) are affected by radiation from the Tower. A buzzing sound occurs, if indeed the device works at all. Often one has to return items purchased for other models until one is found that will work at all. I can hear a radio station on the magnetic cartridge input of my stereo. Certain FM stations will blanket entire sections of the FM dial. FM overloads TV stations whose frequencies are close to the FM bands. I pick-up FM overload on my highly shielded AM only receiver on frequencies well below the FM Band (sub harmonics). I even have gotten FM on my AM only Crystal Set! One time when I was fixing an old radio, it started smoking. Examination of the set showed the antenna transformer was overheating. I first thought that the coil on the radio side of the transformer was receiving too much current. A thorough check of the set revealed this not to be so. I subsequently ascertained that the antenna side was overheating. The only cause could be that my antenna was receiving much more radio frequency current than that for which the wire in the coil was designed to handle (by at least a factor of ten or more). The probes on my standard AC voltmeter pick up enough radio frequency energy to move the needle. When I was grounding the first part of the Faraday Shield on my roof, I recieved a shock. The approximately four hundred square feet of mesh on my roof (attached to nothing but the roof) picked up enough radiation to register 135 volts on my AC voltmeter (at 2000 ohms/volt). Of course the current was very low. You should see the filtration equipment I use to filter out excess radiation coming from both the house wiring (which acts like a big antenna) and from the air so that my electronic equipment (TV, VCR HI-FI etc.) will work more or less properly. I can attach a coat hanger to my oscilloscope and get all kinds of interesting waveforms at radio frequencies. A policeman told me that he can not use radar up here because of the Tower's radiation. We have been told that the sand and residue from sandblasting was low in lead that fell upon our houses, gardens and cars. I wonder how much other heavy metals were present in the stuff. They are often present in sand. They were not tested for and are just as deadly as lead. We often hear cables (or something else metallic) banging in high winds. What would happen if something large and heavy fell from so great a height upon our homes? By the way, even some telephones pick-up radio stations. To protect my family and myself from radiation both for health and lifestyle reasons, I have erected a Faraday Shield around my house. It reduces radiation about 78% inside my house. However, it does no good when I am outside and only one other house in this area is as one. Others report radios and garage door openers turning on mysteriously. Some people have trouble with their computers and cable V. Some of these effects can be demonstrated for you, if you wish.

One quick-fix that will reduce the radiation level somewhat is to make the FM stations that use the Tower, change their antenna types from single bay and even bay types to odd bay types. This will cause the propagation patterns to be more horizontal in nature and remove the spherical pattern that rain much radiation upon us. I talked with Phil Lasky, the man who designed the Tower at a CBA convention a few years ago and he told me that we should not be having the problems that we are having. He blamed it on poor management of the transmitters and the antenna array.

When high definition TV is instituted in mid decade, additional transmitters will be necessary because HDTV is incompatible with traditional TV. Mr. Zastro says that there will be less radiation with HDTV. That might be so because it might require less power than traditional TV. However, the change will not be overnight. The government has stated that for a period of fifteen years TV stations will have to simulcast HDTV and traditional TV. Radiation is cumulative, so during the transition period, the current amount of traditional TV radiation plus (repeat plus) the HDTV radiation will emanate from the Tower. Since we have trouble with overload and harmonics now, we will certainly have more problems then.

Mr. Zastro says that his Federal mandate requires him to supply facilities to anyone who wants them, he is obliged to take on more customers. He says the FCC pre-empts city regulations. I was told by a member of the planning commission, at a public meeting 5 years or so ago, that she knew of twenty-one structures that were erected without a permit. Zastro says that he does not need one because of Federal pre-emption. I have been told that this is not true, that Federal pre-emption does not exempt him from the permit process.

Recently we passed a law requiring employers to place shields on computer CRT screens to protect users from possible health risks. How come we can protect people from radiation from their CRT but not from the radiation from the Tower? A possible precedent here.

Mr. Zastro says that the FCC will protect and regulate any changes occurring on the Tower. The FCC has a reputation as being "reluctant enforcers" and this was before current events. The FCC and FAA are currently in a battle for turf. Each wants more power over the other. This is so each will get more of the shrinking Federal budget. They have no time or manpower (which has been severely cut recently) to regulate the Tower. My FCC license used to require a test and renewal. Now all one has to do is fill out a card and one is licensed for life. This is because they have neither the funds or manpower to regulate people who work at broadcast stations as they once did. The amateur bands are self-regulated because the FCC can not spare the manpower. And you expect the FCC to protect us?

The only way we can stop expansion of the facility is if they want to build a building or addition. Zastro says that he probably will not to accommodate HDTV. I wonder if the lower microwave dishes are legal in that they are not attached to the Tower.

I have already mentioned the damage to the trees. This existed long before the drought or freeze of recent years.

There is also the danger of aircraft collision with the Tower. I am not worried about commercial aircraft, they have radar. Small planes are not required to have or use radar. If a small plane got

lost in the fog, the Tower could be struck, resulting in damage to the houses below. The FAA (remember the turf fight) did not want a tower the size of Sutro Tower built on Mt. San Bruno because of the proximity to the airport. The Tower can not be seen on very foggy days or nights from my house (less than 1000 feet away). A pilot may not be able to manouver out of the way in time in a fog. We do not need this hazard in the middle of a city.

Hope this helps. Call me anytime (648-8489).

F A X Cover Sheet

TO: Christine Linnenbach

F A X Number: 731 4455 +51

FROM: Paul Joseph Bourbin

RE: M+ Sutro Tower

MESSAGE: Here is a paper I wrote a few years ago
about regulation of the tower. Thought you
might find it interesting.

Paul Bourbin

☒ Please verify receipt of this F A X transmission leaving a voice message at: (415) 648-8489, sending a F A X transmission to: (415) 648-8489 or sending email to: PAULBOURBINE@Delphi.com.

☐ Verification not needed

Number of pages in this transmission (including this page) 5

September 9, 1997

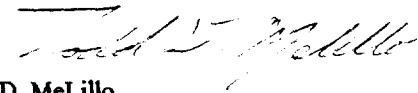
Ms. Hillary E. Gitelman
The Environmental Review Officer
Planning Department
1660 Mission Street, 5th floor
San Francisco, CA 94103-2414

Dear Hillary,

I am writing in response to the Draft Environmental Impact Report which raises many concerns for me and the household in which I live. As a student who spends a great deal of time studying I am very concerned about the increase in noise level during the construction of the proposed 125-foot vertical support structure. This additional 125-foot vertical support structure also raises concerns about projectiles from the Tower striking the surrounding neighborhood including, bolts, wires, cables, tools, and metal siding. The Draft Environmental Impact Report does not explain how this additional 125-foot long beam will effect the balance of the Tower along with the significant increase in structural weight and its effect on the ground surrounding the Tower. What is the seismic integrity of the hill on which the Sutro Tower is located? How is the ground surrounding the water reservoir adjacent to the Tower going to shift/change with the additional weight of the proposed project? Regarding the increase in radiofrequency radiation as the result of simultaneous broadcast of both DTV and NTSC signals how will electronic equipment which I am currently experiencing difficulties with be effected such as, television reception interference, radio reception interference, audio cassette playing and recording interference, VCR playing and taping clarity, answering machine clarity and telephone clarity? The diagram of the proposed 125-foot support beam does not seem to accurately depict the aesthetics of the Tower after the construction period.

I write to you as a very distressed citizen who along with many others in the surrounding neighborhood are experiencing a dreaded fear of the future implications of this proposed expansion to Sutro Tower. These anxieties, frustrations, anger, and feelings of helplessness are very real and alone according to the psychoneuroimmunological model of health can be responsible for ill-health effects as a once peaceful and healthy environment is being overshadowed by big business without much regard to the citizens who must live in close proximity to a growing eyesore. I look forward to your reply

Very truly yours,



Todd D. McLillo
74 Farview Court
San Francisco, CA 94131-1212

cc: Steve Nahm

Mrs. Doris Linnenbach

155 St. Germain Avenue
San Francisco, CA 94114

September 7, 1997

Ms. Hillary E. Gitelman
The Environmental Review Officer
Planning Department
1660 Mission Street, 5th Floor
San Francisco, CA 94103-2414

Dear Ms. Gitelman:

I am writing this letter as a 30-year resident of the Twin Peaks area. Since 1966 the residents of this area have been victims of the communications-media establishment. There was a communications blackout at the time that the original permits were being discussed and finally issued for Sutro Tower. The neighbors fought against this tower but to no avail. David Sacks of KGO and his media influence and deep money pockets forced the issue and won.

Thirty years have passed. Twenty-five years of living with a huge metal structure in the midst of a residential neighborhood. Twenty-five years of noise, interference, constant problems of maintenance, sandblasting, paint falling on the homes and cars, and the stress of seeing articles in the newspapers relating to the EMF issue. Twenty-five years of living with a bad neighbor. Twenty-five years of having the various agencies to which we have turned for noise abatement, or air quality analysis as a result of sandblasting, or interference mitigation turn their backs on us and say we do not qualify for help. Twenty-five years of being "dismissed" by the cavalier attitude from the owners of the tower. We, the residents of Twin Peaks, Midtown Terrace, Garwood Circle, Forest Knolls and many other neighboring communities hereby put the City and County of San Francisco on notice by stating ...Enough is Enough...No More Power on Sutro Tower!

I do not base my objections on the raw emotion of having lived with a "bad neighbor" for thirty years, but on the articles, materials and research which has been conducted in response to the Draft EIR which was published on July 9, 1997. I am deeply concerned about the dangers related to the structural integrity of this tower and the resulting catastrophic loss of human life and property which could occur should this tower fall in the residential area due to a natural or man-made collapse of the tower. All of the residents who live within a thousand-foot radius of Sutro Tower should be considered as potential "fall zone" victims and my concerns will address this issue:

In October 1996 a 1500 foot transmission tower in the Dallas-Ft. Worth area collapsed into a mass of twisted red and white metal killing three workers when wind caught machines used to hoist a new antenna on to the existing structure.
(St. Louis Post-Dispatch, Sunday October 13, 1996)

The EIA (Electronics Industries Association) released tower standards in 1996. An analysis of Sutro Tower should be done with these new standards in mind.

Sutro Tower has been standing for over twenty-five years. In 1992, Cooper, White and Cooper, Sutro Tower's own attorneys, admit in a letter to Mr. Dean Macris of the Planning Department that the fog and salt air have badly corroded the structure and it is an ongoing process. In Electronic Media (copyright 1994, Croin Communications Inc., December 1994), Michael Schneider states that snow, ice, hurricanes, earthquakes, bombings and years of neglect are enemies of towers.

There are definite standards for construction of towers today. The Electronics Media article refers to towers which have been "grandfathered" in and do not meet with today's standards. We want the revised EIR to include an analysis of Sutro Tower's classification in regards to "grandfathering" of towers. Has it been "grandfathered"? If so, how could any responsible agency "grandfather" a 977 foot tower in the middle of a residential area?

Electronics Media also states that "in San Francisco the threat of a major earthquake is a constant consideration". Eugene Zastrow states that "Sutro Tower is a self supporting tower". The EIR does not adequately address the earthquake issue, the impact of seismic activity, the new available technology in the building of safer towers, the current seismic status of Sutro Tower, and the future obligation of Sutro Tower to continue to retrofit the tower. The Kline study of 1995 was not made available to me when I requested it from Debra Stein. I was told we could not obtain this report because "Watson also wants to construct at HDTV" station. This study should be made available so that we could properly respond to it. Any report that Kline or any other company has conducted over the years regarding seismic upgrading should be revealed to San Francisco's citizens and especially citizens who live within Sutro Tower's fall zone according to the Freedom of Information Act.

The FCC mandates annual inspections of towers. We want the EIR to include copies of the last three years of inspections relating to the condition of tension and plum of Sutro's guy wires, structural integrity, all attachments such as transmission lines, and the structure itself, such as antennas and lines, lighting and paint. We want a comprehensive report on the response of Sutro Tower, Inc. to the required upgrades. Recent upgrades to the tower were approved by the Zoning Administrator. Why? And by what standards? We would like both the FCC requirements and the status of Sutro Tower's current compliance included in the revised EIR. Along with the FCC, FAA regulations have played a large part in decisions regarding the tower (strobe lights, paint colors, etc.). We also want access to all files regarding FAA mandated work on Sutro Tower, and this information

should be included in the final EIR. With respect to the FAA and air traffic, the project sponsors should not discount the possibility of a light aircraft hitting the tower in heavy fog. In the early 1960s, such an accident occurred--a light airplane crashed into the base of Mt. Sutro, covering the area with debris.

Joel Brinkley of the New York Times in an article written in May 1997 "Digital TV May Be Short on Towers...Few Crews Ready, Sites Hard to Find" states that tower builders will be on a crash program to build with only a few crews which will have the experience to put up these towers. He also states that "fully loaded towers -- even one more antenna along with the 2000 feet of fat copper wire cable leading to it - would add more weight than the tower could bear..."

Sutro Tower also needs to upgrade its structure before they can attach the proposed new HDTV tower on its existing structure at the 755 foot level. The EIR does not address the specifics of the upgrade. What assurances do the fall zone residents have that a qualified group of tower builders will perform the work? Will they rush the job regardless of wind conditions and other foul weather in order to complete the job on time? We experienced this type of irresponsible behavior when the tower was conducting their sandblasting maintenance job. They kept working in spite of adverse weather conditions, in order to do the job "on time". As a result of their pushing ahead during high winds, our houses, cars and the surrounding area was covered with the fine silica used for sandblasting. Should they use the same "unholy haste" in attaching the antennae, Sutro Tower, Inc. could be responsible for a major catastrophe. And...should this occur, to whom do we turn for help? Sutro Tower? The City Attorney's Office of the City & County of San Francisco? FEMA? The Police Department? The Fire Department? Who has the ultimate responsibility to monitor their actions during the course of this planned upgrade and attachment of the HDTV tower antennae?

This leads to the issue of Fall Zone Insurance. Brinkley adds..."In the years since, insurance companies have begun to require television stations building towers to use land large enough that the tower can fall in any direction without hitting anything - meaning that in some cases a circular plot with a diameter of 4,000 feet is needed. Towers do in fact fall on occasion. Seven of them collapsed during a storm in Minnesota and North Dakota last month. No one was injured".

The EIR fails to address safety precautions which should be taken to protect fall zone residents. Does Sutro Tower carry Fall Zone Insurance? Does Kline & Co. carry Fall Zone Insurance? Who is financially responsible to the fall zone residents if a singular accident or catastrophic accident should occur during the course of installation and construction of the new tower with the existing old and corroded tower? Have adequate structural studies and visual inspections been done in the areas of attachment to be sure that the almost 20,000 pound DTV tower can safely be attached?

If in the event that neither Kline nor Sutro Tower has adequate Fall Zone Insurance to cover the loss of life and property to the potential fall zone victims, the City & County of San Francisco should take some sort of action to protect its citizens. If, in the event that citizens would be forced to buy their own fall zone insurance, the City & County of San Francisco should be prepared to lower our assessed property tax based on the lower value of our property.

A fall zone catastrophe is an accident on its way to happen if the City of San Francisco grants Sutro Tower, Inc. the right to place an HDTV tower with their old and corroded existing structure. In Video Technology News, dated February 10, 1997 "ATV Roll Out Likely to Result in Tower Crunch", the industry is put on notice that "...the effort required to strengthen a tower is comparable to erecting a new tower. In some respects, it is more expensive and dangerous." The EIR clearly ignores this impact on the fall zone residents and the environment in general. In this same article, the problem of grandfathering in existing towers that do not meet new specifications is also addressed again. Let it be known that no one's life can be reinstated through "grandfathering". Today's windload factor standards must be addressed and Sutro Tower stands 1800 feet above sea level. The EIR has failed to address the dangers of creating a tower within a tower and it must do so on the revised draft which must be sent to everyone in the fall zone. I call upon the project's sponsor to create a fall zone list and add these people to their list of "interested parties".

I hesitate to mention my final concern, but nevertheless we cannot ignore the potential for an act of terrorism. Sutro Tower is a communications nerve center, located in an easily accessible area, among dense trees with minimal security. Given the unimaginable events in Oklahoma City and the World Trade Center, and given that San Francisco is such a powerful "photo-op", anyone with any sense of public responsibility would consider Sutro Tower a potential site for sabotage. What are the FCC and FAA regulations regarding protection of such sites? Has this scenario even been considered in decisions to allow the tower to remain in such an indefensible location? It is your civic duty to factor this potential threat into your decisions regarding expansion of Sutro Tower.

In conclusion, I want to state that I am very angry that the Twin Peaks-Midtown Terrace community was handed such a poor and incomplete EIR and that we were expected to accept it on its merits. We want more information on the peer reviewers. We want their credentials. We are a group of highly intelligent citizens who expected a complete EIR. In fact we wonder how a focus EIR could have been done when a Master EIR was never completed on the project initially in 1966. This community deserves a Master EIR done. If you check your records, this was requested of you by Armin Perlmuter in a letter sent to Mr. Passmore in 1988. Our records contain this information. Do yours? We have been denied access to your files. They have been deemed missing since I requested them in July. See enclosed letter from Mark Berkowitz.

Let me assure all of our City fathers that this time we are not going to be placated and go away like good obedient little children. We are going to get all the facts out in the public record this time and are going to exercise every remedy available to us. You have no community support for this project. This was made very evident to us by the huge turn out at our informational meeting held at St. John's Church on Wednesday, September 3, 1997. The irony of all of this is that this meeting was held in a week that the entire world mourned the death of Princess Diana, which was caused in no small part by the greed and destructive power of an unrelenting industry called the communications media. The issue of Sutro Tower has been one of media greed and power from the onset in 1966.

I am angry that over the years we as a community have had to spend thousands of hours policing Sutro Tower, Inc. on our own time and at our own expense. We have had no help from our City fathers in all these years. Why, we ask? The City & County of San Francisco receives only \$125,000 per year in property taxes. So why, we ask, is this structure, which is an "unattractive nuisance" -- so attractive to the powers that be in our City. Could it perhaps be the huge monetary contributions made to our local politicians by the communications industry?

Perhaps it is time that you check the list of campaign contributors and get the answers to the political implications behind Sutro Tower, Inc.

Again, I said to all of you in City Planning, we want answers, we want the City of San Francisco to be responsible for their actions. Enough is Enough -- No More Power on Sutro Tower!

Sincerely,

Doris S. Linnenbach

Christina Deardorff
62 Midcrest Way
San Francisco, CA 94131
415.821.4703

Hillary E. Gitelman
Environmental Review Officer
Planning Department
1660 Mission Street, 5th floor
San Francisco, CA 94103-2414

September 3, 1997

Re: Summary comments to Sutro Tower Digital Television Draft Environmental Impact Report - 95.544e, dated July 9, 1997

Recently, I attended an informational meeting regarding the addition of DTV antennas to Sutro Tower. The Draft Environmental Impact Report was also reviewed. I went into the meeting ignorant of the Tower's history, the amount of electromagnetic radiation emissions, and the impact it has on the surrounding neighborhood. I wasn't aware that paint chips from the Tower had fallen to the ground, nor that the Tower emits "hot spots" of radiation, nor that these emissions propose any health risks. The thought of the Sutro Tower collapsing during an earthquake or the event of an airplane crashing into the colossal structure never entered my mind. They say ignorance is bliss.

I find it disturbing that no studies on the effects of electromagnetic radiation emissions on humans have been performed. I find it *more* disturbing that Sutro Tower Inc. and San Francisco's planning department would allow people of the Midtown Terrace & other surrounding neighborhoods to be exposed to electromagnetic radiation without researching its effects on humans. **This is simply unethical & irresponsible.**

One study was mentioned at the meeting in regards to the surrounding neighborhood and electromagnetic radiation emissions. This study, based on Department of Health data, looked at residential areas surrounding the Tower. The residential areas that were selected were all located North, Northwest, and Southwest of the Tower. The emissions point Southeast of the Tower. I found this study to be inconclusive because the areas tested are not neighborhoods directly affected by the Tower's emissions.

One question: If the Tower's emissions are presumably at "safe levels" then why are employees at the Tower, while performing work on the Tower, required to wear protective suits??? These suits are designed to protect against harmful levels of radiation.

The proposed expansion needs to be halted until substantial data on potential health hazards has been collected.

In addition to health risks, I'm concerned about the selected location of the DTV antennas. Why Sutro Tower and not San Bruno Mountain? Is it merely an issue of money? Or greed, in this matter? San Bruno Mountain, as stated in the Draft Environmental Impact Report, is a better sight for the antennas. It *will* have an environmental impact, nonetheless, it is a **nonresidential** site.